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Destroy the Common Barberry Bush

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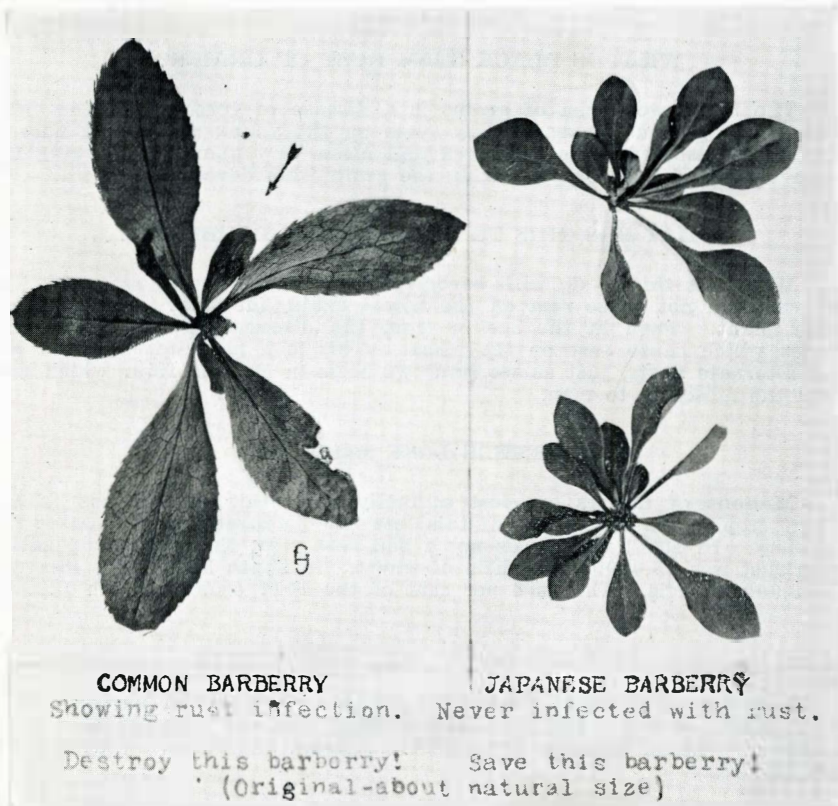
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Destroy the Common Barberry Bush

IT THREATENS THE WHEAT CROP



Comparison of Common and Japanese Barberry

Cooperative Extension Work in Agriculture and Home Economics. South Dakota State College and U. S. Department of Agriculture Cooperating.

WHY THE COMMON BARBERRY MUST BE DESTROYED

It harbors and propagates black stem rust of wheat and other grains. It is a patriotic duty of every one in the state who owns even one bush of the common barberry to dig it out and destroy it and thereby help save the millions of bushels of wheat which are annually destroyed by rust.

WHAT IS BLACK STEM RUST OF GRAINS?

The black stem rust of grains is a disease of cereals. In the early part of the season it causes rusty spots on the young grain. At harvest time these diseased spots are black and often very abundant, making the grain weak and poor or preventing the grain from developing at all.

WHAT HAS THIS TO DO WITH THE BARBERRY?

What has this to do with barberry? The black spores or "seeds" of the rust can not cause rust on the wheat again but must infect the barberry plant. Then in the spring from the diseased barberry come the spores which cause rust on the wheat. This is a plant disease that has two alternate hosts, just as we find two hosts in Malaria fever which goes from the mosquito to man.

FARMERS LOSE MILLIONS

Millions of dollars are lost annually from this one disease in the wheat crop and a large part of this loss can be saved by eradicating the barberry. In 1917, which was not a bad rust year, the loss to the nation from rust was 45,000,000 bushels of wheat. In South Dakota the loss was 2,168,000 bushels. This is 4 per cent of the 1917 crop in South Dakota.

HOW TO KNOW THE BARBERRIES

It is important to know how to identify the common barberry from the Japanese variety which does NOT produce rust and does not need to be destroyed. Learn to know the barberries from the following description and pictures.

Both the common barberry (*Berberis vulgaris*) and the Japanese barberry (*Berberis thunbergii*) are cultivated perennial shrubs grown as ornamental plants in gardens, lawns and in hedges. They do not grow wild in South Dakota. The common barberry is also called the high, European or erect barberry. The Japanese barberry is also called the Thunberg, low, or spreading barberry. Both have spiny stems and reddish berries that hang on the bush over winter. There are two varieties of the common barberry. One has green leaves and the other purple leaves—both harbor rust and must be destroyed. The Japanese barberry has green leaves.

The following figure shows the chief differences between the two barberries:

COMPARISON OF COMMON AND JAPANESE BARBERRY



Plant large (4 to 6 ft. high), erect
Stems gray or grayish green.



Plant smaller (2 to 4 ft. high)
and spreading.
*Stems reddish brown



Spines mostly 3 in a group
Along the top of the stem
spines are often single, at
bottom of stem spines often
in clusters of more than 3



Spines mostly single, some-
times 3 in a cluster.
Buds and leaf clusters are about
 $\frac{1}{2}$ inch or less apart on stem.



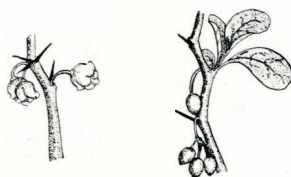
Leaves large and broad,
Spiny teeth on edge.
Color: green or purple



Leaves smaller, spoon-shaped,
edge smooth; color green



Flowers and berries
in a long cluster.



Flowers and berries single or
in small groups of 2 or 3.

Courtesy University of Minnesota Extension Division

Common Barberry (left)

It harbors and propagates black stem rust of grain. Destroy this barberry.

Japanese Barberry (right)

It does not harbor or propagate black stem rust of grain. Save this barberry.

DIG AND BURN

If you own a common barberry destroy it for the sake of a bigger, better wheat crop. If your neighbor owns barberries ask him to destroy them. Report all barberries found to the address below, so that we may keep a record at State College of the barberries found and destroyed.

Dig it up. Dig the large roots, crown and all, so that it will not sprout again. On May 8 at Vermillion and May 15 at Brookings this year rust in a mature condition was found on barberries. The rust is appearing on barberries all over the state in May. This means that if your barberries are not out NOW they may have already injured the wheat crop of 1918. Do not delay the destruction of the barberry. Burn the bushes. This will destroy the rust if it has already appeared.

For further information address:

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